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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,666	02/20/2002	Darel N. Emmot	10001769 -1	7066

7590 01/21/2004
HEWLET-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

NGUYEN, HAU H

ART UNIT PAPER NUMBER

2676

DATE MAILED: 01/21/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,666

Applicant(s)

EMMOT, DAREL N.

Examiner

Hau H Nguyen

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-7, 21-23 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 13-20 of copending Application No. 10/079,667. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 2676

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 8-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Deming et al. (U.S. Patent No. 6,476,816).

Referring to claim 8, Deming et al. teach a method wherein, a polygon is displayed on a horizontal scan device having a plurality of pixels by dividing the polygon into a plurality of vertical stripes (pixel region) that are transverse to the horizontal scan of the display device, and then calculating attribute data for each of the pixels on a stripe by stripe basis. More specifically, after the polygon is divided into stripes, pixel attribute data is received for a first pixel in a first stripe of the polygon. Each of the remaining vertical stripes have an initial pixel (reference pixel) that corresponds to the first pixel in the first stripe. Gradient data relating to the degree of change of pixel attribute data with respect to the received pixel data (relating to the first pixel) also is received. Based upon the received data, pixel attribute data then is calculated for each initial pixel in each stripe in the polygon (writing reference pixel to a sequential block of memory). Once the pixel attribute data is calculated for each initial pixel, then pixel attribute data for each remaining pixel in each stripe is calculated based upon the pixel attribute data for the initial pixel in each stripe in the polygon (col. 5, lines 24-45), and thus, all pixel data associated with pixel region is the same as reference pixel. As shown in Fig. 7, a token (fill check bit) indicates that all pixel data in each stripe is written in the memory, which also means that all pixel data in each stripe is the same as the reference pixel data (col. 13, lines 52-58, see also to Fig. 9).

In regard to claim 9, with reference again to Figs. 7 and 9, it can be inferred that the token also indicates that all pixel data within pixel region is not the same as the reference pixel, for

Art Unit: 2676

example, when the token is passed to another unit, the next stripe is processed, a next initial pixel is retrieved and all pixel data in the next stripe is calculated based on the next initial pixel.

Referring to claims 11, 13, and 14, as shown in Fig. 9, step 902, initial pixel is calculated, and retrieved for calculating pixel data for remaining pixels in current strip (step 904). It is inherent the initial pixel is stored before being retrieved.

In regard to claims 10, 12, 15-16, Deming et al. further teach data for a triangle strip 400 (Fig. 4) may be broken up into a plurality of sub-triangle strips 400 while being processed by a geometry accelerator. For example, as six vertex triangle strip 400 may be processed to produce two or more separate data streams of sub-triangle strips. A first data stream may include data for vertices 1-4, while a second data stream may include data for vertices 3-6. In such case, the flag is included but not set at the end of the first data stream. After processing gradient data for the first data stream, a gradient producing unit 210 detects that the flag is not set and responsively maintains control of the accelerator bus 212. Upon receipt of the second data stream, such gradient producing unit 210 locates the flag and determines that it is set. Consequently, the gradient producing unit 210 passes the token to the next peer unit, thereby permitting the next ordered set of vertices (i.e., the next triangle strip) to be processed (col. 14, lines 16-33).

Referring to claims 17-19, Deming et al. teach the display device has an arbitrary scan direction and the stripes are transverse to the arbitrary scan direction (col. 1, lines 61-63), and thus memory for storing sets of pixels corresponding to a predetermined scan line of the display device.

In regard to claim 20, Deming et al. teach pixel attribute data can be a thirty-two bit word (col. 21, lines 29-30).

Art Unit: 2676

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Buckelew et al. (U.S. Patent No. 6278645) teach a device for storing pixel information for displaying a graphics image on a display wherein, frame buffer may be subdivided into a plurality of blocks, where each block corresponds to a region of the display having a plurality of contiguous pixels.

Sakuraba et al. (U.S. Patent No. 6,052,126) teach a parallel processing three-dimensional drawing apparatus wherein, the drawing processing units execute the simultaneous drawing operations of 128 pixel data by simultaneously accessing arbitrary positions in rectangular regions in the 3-dimensional frame memory.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 703-305-4104. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

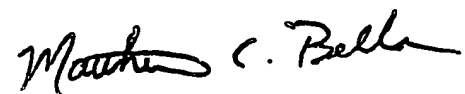
Art Unit: 2676

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose
telephone number is (703) 306-0377.

H. Nguyen

11/14/2003


MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600